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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	Linda Morales et al.	§	Art Unit:	2416
Serial No.:	09/960,008	§		
Filed:	September 21, 2001	§	Examiner:	Warner Wong
For:	Method and Apparatus to Control Handoff Between Different Wireless Systems	§	Atty. Dkt. No.:	NRT.0103US (13837RRUS02U)

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Dear Sir:

Applicant requests review of the final rejection dated May 1, 2009, in the above-identified application. No amendments are being filed with this request.

This request is being filed with a Notice of Appeal.

It is respectfully submitted that independent claim 1 is non-obvious over Gilhousen in view of Dolan.

Independent claim 1 recites a method of performing wireless communications comprising:

- communicating bearer traffic for a packet-switched communications session between a mobile station and a first base station associated with a first type of wireless system;
- determining if handoff is required from the first base station to a second base station associated with a second, different type of wireless system; and
- in response to determining that the handoff is required, sending a message from the first base station to the second base station over an interface between the first base station and second base station, the message indicating to the second base station that handoff is required.

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With respect to claim 1, the Office Action conceded that Gilhousen fails to disclose the last clause of claim 1. 5/1/2009 Office Action at 2-3. However, the Office Action cited Dolan as purportedly disclosing the claimed subject matter missing from Gilhousen.

It is respectfully submitted that no reason existed that would have prompted a person of ordinary skill in the art to combine the teachings of Gilhousen and Dolan. Gilhousen in columns 8, 9, 10, and 11 describes the handoff procedures that could be performed in a multi-system arrangement that includes two systems employing different air interfaces. In each and every one of these procedures, control messages are exchanged between MSC I (a first mobile switching center) and MSC II (a second mobile switching center) for the two respective systems. A basic procedure is identified in column 9, at lines 19-38, of Gilhousen. Variations of this basic procedure are identified as methods 1-5 in columns 9-12 of Gilhousen. In each of the Gilhousen methods 1-5, to perform a handoff, the MSC I and the MSC II must exchange messaging to perform allocation of channel resources and to perform other setup tasks. In none of these Gilhousen methods that involve multiple systems with associated MSCs (MSC I and MSC II) is there any communication of a message from one base station (associated with a first type of wireless system) to a second base station (associated with a second, different type of wireless system), over an interface between the first and second base stations, where the message indicates to the second base station that handoff is required.

In short, Gilhousen would have led a person of ordinary skill in the art away from using an interface between first and second base stations for sending a message from the first base station to the second base station to indicate to the second base station the handoff is required.

Moreover, Dolan teaches subject matter that is unrelated to the claimed subject matter. In fact, the teachings of Dolan are inconsistent with the teachings of Gilhousen. Although Dolan refers to two protocols in ¶ [0010], these two protocols refer to a first protocol to communicate between an SDU and an interconnection processor of a base station, and a second protocol to communicate between the SDU and a call controller of a base station. These two protocols have nothing to do with base stations associated with different types of wireless systems that are able to communicate with a mobile station. Dolan proposes the use of first and second packet interconnection protocols, where a first packet interconnection protocol "establishes an interface between a selection distribution unit (SDU) for performing frame selection and voice transcoding, and a base station interconnection processor for transmitting control information,

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signaling and user traffic to mobile stations.” Dolan, ¶ [0010]. This is illustrated in Fig. 2 of Dolan, where a link 231 between the SDU 224 in the source base station 220 and the call controller 242 in the target base station 240 uses the second protocol, while the link 233 between the SDU 224 in the source base station and the interconnection processor 244 in the target base station uses the first protocol. *Id.*, ¶¶ [0022], [0025]. As noted by Dolan, the use of an SDU and the first and second packet interconnection protocols enhances flexibility. *Id.*, ¶ [0034]. Thus, the two protocols referred to in Dolan refers to protocols to communicate between an SDU and an interconnection processor of a base station, and a second protocol to communicate between the SDU and a call controller of a base station.

In other words, Dolan clearly does not provide any teaching that would have prompted a person of ordinary skill in the art to modify Gilhousen to achieve the claimed invention, particularly in light of the specific teaching in Gilhousen that handoffs in a multi-system environment require 2 MSCs to be involved, where MSCI and MSCII must exchange messages with each other to allow the handoff to occur.

Since no reason existed that would have prompted a person of ordinary skill in the art to combine the teachings of Gilhousen and Dolan, the obviousness rejection is clearly defective. *See KSR International Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1741, 82 U.S.P.Q.2d 1385 (2007).

The Response to Arguments of the final Office Action argued that Gilhousen and Dolan are “combinable because both references are in the related art of cellular communication, with communication between different types of base stations, and describes how a handoff can be made.” 5/1/2009 Office Action at 8. The Response to Arguments of the final Office Action also stated that Applicant’s argument constitutes “a piecemeal analysis because while Gilhousen fails to specify that the communication directly between two base stations of different [types] of wireless [systems] for a handoff, the Dolan reference specifies direct communication between two base stations for a handoff (fig. 7 & supporting description).” *Id.*

While it is true that Gilhousen discloses handoff in a multi-protocol system, Gilhousen teaches a solution that would clearly have led a person of ordinary skill in the art away from the invention, in which handoff is accomplished by sending a message between base stations over an interface between the base stations. A person of ordinary skill in the art would have been led by Gilhousen to perform handoff in the context of a multi-protocol system by exchanging messaging between MSCs, not between base stations.

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Moreover, although Fig. 7 of Dolan shows messaging between a source base station and a target base station to perform a handoff, there is no indication or hint in Dolan that the source and target base stations are different types of base stations. As discussed above, the different packet interconnection protocols mentioned in Dolan are protocols to communicate between an SDU and an interconnection processor.

In view of the foregoing, it is clear that claim 1 is non-obvious over Gilhousen and Dolan.

Independent claims 16 and 24 are allowable for similar reasons.

Dependent claims are allowable for at least the same reasons as corresponding independent claims.

In view of the foregoing, it is respectfully requested that the final rejections of the claims be withdrawn. The Commissioner is authorized to charge any additional fees and/or credit any overpayment to Deposit Account No. 20-1504 (NRT.0103US).

Respectfully submitted,

Date: August 3, 2009

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